



PATENT SPECIFICATION

608,883

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Index at acceptance:—Class 4, G8.

COMPLETE SPECIFICATION

Improvements relating to Aircraft

We, SOCIETE ANONYME BELGE DE CONSTRUCTIONS AERONAUTIQUES S.A.B.C.A., a Belgian Company, of 13, rue de Brederode, Bruxelles, Belgium, and HENRI CORNELIUS, 5 of Belgian Nationality, of 1, Place Constantin, Meunier, Forest-Bruxelles, Belgium, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained 10 in and by the following statement:—

The present invention relates to improvements in the landing wheels of aircraft and relates more particularly to the type of landing wheel which is provided with blades or vanes 15 which serve to rotate the wheel when the aircraft is in flight so that the wheels are already rotating prior to the aircraft touching down. By causing the landing wheels to rotate prior to the aircraft touching down the 20 shock to the wheels and undercarriage is considerably reduced.

According to the present invention an aircraft landing wheel of the type referred to is characterised in that the blades have their 25 working surfaces substantially normal to the medial plane of the wheel whilst their other surfaces are inclined in relation to the said plane.

Further, according to the invention, a cover 30 may be provided for the top part of the wheel which cover is adjustable to permit control of the number of blades exposed to the propulsive force of the air.

One form of the invention is illustrated in 35 the accompanying drawing in which the figure is a perspective view of a landing wheel in accordance with the present invention.

Referring to the drawing, a cover 1 in the form for example of a hood or spat is provided 40 on the upper part of the wheel 2 and this hood or spat made adjustable so as to control the number of blades 3 exposed to the wind. In this way the speed of rotation of the wheel may be controlled.

45 The landing wheels may be provided with known braking arrangements and these brakes may be employed if desired to reduce the speed of rotation of the wheels before the aircraft touches down.

The blades 3 with their two faces are so arranged that the face 4 lying normal to the medial plane in which the wheel lies faces the direction in which the plane flies when in the lower half of the wheels rotation. The inclined face 5 will correspondingly face the direction 55 in which the plane is flying over the upper half of rotation of the wheel and the wind will be deflected off this face 5 and so will not materially affect the rotation of the wheel 2 in the correct direction by pressure of the wind 60 on the blades in the lower half of the wheels rotation.

When a spat or mudguard is employed, the spat being of the fixed type and not adjustable, it may extend to the level of the axis of the 65 wheel. If, however, it is of the adjustable type, it can be made adjustable over substantially the whole depth of the wheel.

Having now particularly described and ascertained the nature of our said invention and 70 in what manner the same is to be performed, we declare that what we claim is:—

1. An aircraft landing wheel of the type referred to characterised in that the blades have their working surfaces substantially 75 normal to the medial plane of the wheel whilst their other surfaces are inclined in relation to the said plane.

2. An aircraft landing wheel as claimed in Claim 1 characterised in that a cover is provided for the top part of the wheel which cover is adjustable to permit control of the number of blades exposed to the propulsive force of the air.

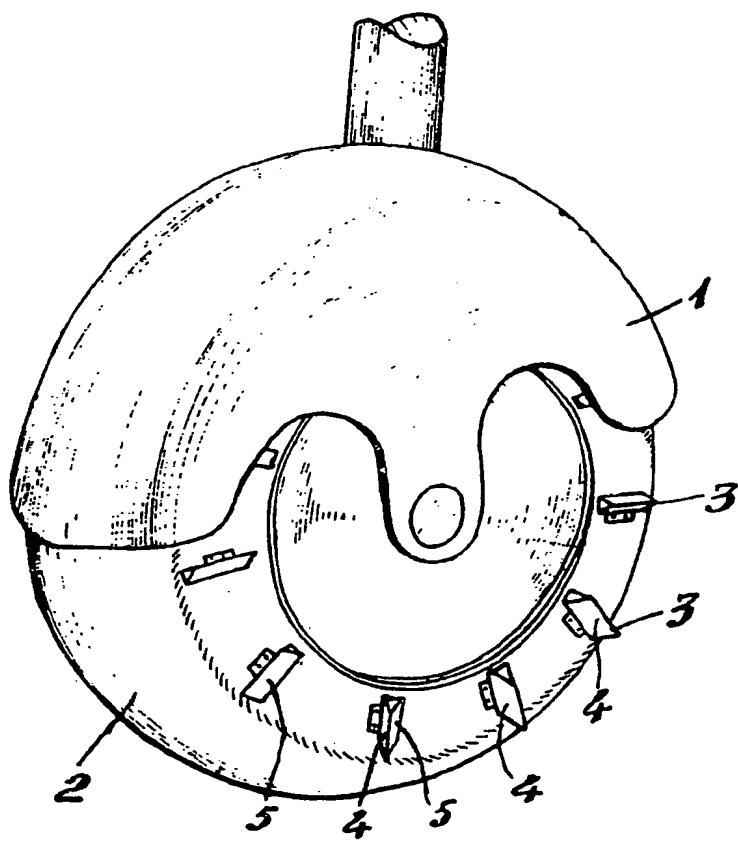
3. An aircraft landing wheel as claimed in 85 Claim 1 or Claim 2 characterised in that brakes are provided on the wheel.

4. An aircraft landing wheel substantially as described with reference to the accompanying drawing. 90

Dated this 31st day of January, 1946.

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[This Drawing is a reproduction of the Original on a reduced scale.]



H.M.S.O. (Ty.P.)

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